

"Dedicated to Public Service"

# THE RADIATOR



W6RHC  
IRL #8170  
Echolink #322788



<http://www.gearsw6rhc.org>

P.O.Box 508 Chico, CA 95927-0508

Founded: August 13 1939

75 YEARS

November, 2014

## Coming Events

### O.A.R.S. GENERAL MEETING

Second Friday, every month, at 7:00 p.m., at St. Paul's Church Parrish Hall, 1430 Pine St., Oroville

G.A.R.S. Second Wednesday, each month, General Meeting, Lutheran Church Hall, Artois; 7:00

G.E.A.R.S General Meeting, third Friday each month, at Butte County Search and Rescue Building, Chico. Doors open at 6:30 p.m.

Butte A.R.E.S. MEET: fourth Friday, monthly, at Butte County Search and Rescue Building.

### FCC EXAMS - GEARS VEC

First Sunday of every even numbered month.  
At the Butte County Search and Rescue Building.  
Written test at 2:00 p.m. For information or pre-registration call Tom Rider-W6JS, (530) 893-9211.

### Club Events:

News and items of interest  
GEARS Calendar...all inside.

Website: [www.gearsw6rhc.org](http://www.gearsw6rhc.org)



Picture courtesy EVARC

## The Prez' Says:

Ah, yes, it's No-wonder again! Time for rain storms, raking leaves and staying warm and dry. A great time for honing your radio skills that may have suffered during the summer while fishing, gardening or traveling. The ARRL has listings of events to participate in, and QSO parties too. It's a worthwhile group to join, supports ham activities nation-wide and publishes articles to interest almost everyone. My favorites are the stories about the hardships of the D-expeditions mounted to strange and far-off places only reached by imaginative planning.



Gene Wright, WA6ZRT, has assured me we have enough bodies to fill all of the officer positions on the ballot. BUT we would still accept nominations from the floor for any position. The election is held in December if there are any contested slots on the ballot; otherwise, the new year will see the officers taking their positions. And with that mention--- Don't forget to vote on Tuesday!

Last meeting saw the start of the construction of our low cost buddy poles. I can hardly wait for the rest of the parts to come in so the project can be finished and we have fast and easy communication available. Now I just have to get my multi-band mobile working right. And in case you are interested; Scott has the IRLP and Echolink functioning from its new site up the Skyway. Give it a try.

Short letter this month. I am happy to report that the repair job done on my roof by one of our newest members, KE7UOR Bart Ickes, was mucho successful. No more water-falls through my kitchen cabinets. HOORAY!!! So until next month, good propagation to you all.

See you at the club meeting.

Anna KG6ZOA, President, GEARS

## **Buddy Pole Project also Benefitted the JOTA Scout Event**

G.E.A.R.S meeting night was very productive. Everyone who worked on the homemade buddy poles seemed to enjoy themselves. It was a good learning experience for all.

Gene and I had 12 assemblies ready and all were used! When the pull-out rods are back in stock, I will order them and then schedule the final assembly program. I have modified my antenna and have a horizontal vertical antenna on the same pole.

Gene and I took our homemade buddy poles to the boy scout jambo-ree (JOTA). We were able to help many smiling faces make several contacts. All the scouts who reached three contacts received their very hard to get ham radio badge.

I wish to thank the following GEARS members for all your help! Dale, Scott, Evelyn, Jeff, Dick, Stephen, Gene.

Tom—w6js



## **YAVAPAI AMATEUR RADIO CLUB (YARC) TO OPERATE SPECIAL EVENT STATION ON NOVEMBER 17, 2014.**

The event is in celebration of the NRA's 143rd birthday. The station will operate from Gunsite Academy's 2000 acre campus, north of Prescott, Arizona.

The special event call sign will be K7NRA, and FCC -licensed amateur radio station .

Operations will be conducted on the amateur frequencies from 0800 MST to 1700 MST: 7.250, 14.050, NS 21.335 MHZ.

Acknowledgment of communications, a unique NRA/Gunsite certificate will be sent to those stations contacted during the event.

All amateur stations are urged to participate.

For more information go to YARC's website, [www.w7yrc.org](http://www.w7yrc.org).

(extracted from article published in America's 1st Freedom magazine, November 2014 issue)

## NOVEMBER MEETING NOMINATION OF OFFICERS FOR 2015

Famous words of a past president  
of a neighboring Amateur Radio Club:

"I didn't attend a meeting, and I  
was elected President!:

Maybe that is the solution to filling  
posts for which members are often re-  
luctant to volunteer!

Don't be shy! Step up and be-  
come active . Participate! Your exper-  
tise and experience is what makes our  
club a success and a survivor ....now in  
our 76th year!

Help keep us alive and kicking!

Put your name on the slate!



P.S. Just learned we have all candi-  
date slots full , but it is an election &  
more than one can run for a position .  
That is what elections are all about!



(The above published in the  
Valley Ham News, Yuba Sutter AR Club )



Caps embroi-  
dered with your  
name and your  
call sign may be  
ordered by con-  
tacting WA6ZRT  
-Gene Telephone  
#530 -345-3515

**VEC TESTING**  
**2:00 p.m.**

**December 7, 2014**  
**February 2, 2015**

**AT BUTTE COUNTY  
SEARCH & RESCUE  
BUILDING**

**All Classes**  
**Technician, General and**  
**Extra.**

**Contact: W6JS**  
**Tom Rider**  
**530-893-9211**

**MINUTES OF GENERAL MEETING  
October 17, 2014**

**PROGRAM:** Inexpensive power supply.

**ATTENDANCE:** ALL present

**VEC:** Five people have taken and passed their tests 4 technicians and 1 general.

**TREASURER:**  
The Treasurer report:

Income \$481.20; Expenses \$332.04;  
Ending balance on hand \$3,043.02.  
The report was approved.

**MINUTES:** Approved the minutes from September meeting.

**OLD BUSINESS:**

JOTA On the 18 Oct at the Elks Club.

**NEW BUSINESS:**

None.

**ADJOURNMENT:** 19:28 hr.

Dale Anderson,  
Secretary

**MINUTES BOARD OF DIRECTORS:  
October 17, 2014**

**ATTENDANCE:** All present

**OLD BUSINESS:**

**ECOLINK:** Is now up. Allocated \$115 for Ecolink repair and software download.

Web page will be up by the end of next month.

Our main repeater is down and being worked on. The backup has a problem of not being able to reset the time and some noise on the input.

**NEW BUSINESS:**

**MEMBERSHIP APPLICATIONS:**

<b>Renewals:</b>	<b>New Members:</b>
Russell Schermer	Gary Divine
Virginia Periat	Bart Ickes
Rick Hubbard	Gordon Browing
Arnott Smith	
Jim Hellmann	
Joann Biegler	
Tom Rider	
Bob Huber	
John Hursey	
Stephen McDermott	

**ADJOURNMENT:** 21:30 hr.

Dale Anderson,  
Secretary





PHOTOS courtesy of Dale Andersen, KK6EVX  
Thank you!





These are some pictures of the Pacificon conference October 10-12, 2014. Margie and I attended. We had a wonderful time and learned a lot, reconnected with many friends from the bay area. Stephen-KF6HSS



Not all activities are inside! Huge enterprise, and we did Walk a lot!

Thank you Stephen and Margie for the photos and for sharing with GEARS members.



KJ6SEV, Margie Wolske & KF6HSS-Stephen Wolske attending the Pacificon Conference.



Elecraft Radios manufactured in California





## **GARS—WHAT IS HAPPENING IN NOVEMBER?**

The meetings of the GLENN AMATEUR RADIO SOCIETY, are now held on the second Wednesday of every month at the Lutheran Church Parish Hall , Artois, California.

The board meets at 6:00 p.m, with the General meeting commencing at 7:00 p.m.

The program for our meeting of November 12, 2014, is a "hands on" presentation on "programming radios" conducted by Albert Leyva-N6YCK.

All Amateur Radio Hams , all members of GARS , GEARS & OARS (and non members as well) are invited.

Bring your radios and, if you have them, the associated manuals for an active, productive evening.

I will work with each of you on any radio programming issue you may have.

**Albert Leyva -N6YCK**  
**President, GARS**

## **[HR 4969 - the "Amateur Radio Parity Act of 2014" -](#)**

During June, with Congressman Adam Kinzinger (IL-16) as the sponsor and Congressman Joe Courtney (CT-2) as co-sponsor, [HR 4969 - the "Amateur Radio Parity Act of 2014"](#) - was introduced into the 113th Congress. This bipartisan effort would direct the FCC to extend the "reasonable accommodation" provisions for Amateur Radio antennas to include all types of land-use regulation, including deed restrictions and restrictive covenants.

Most importantly, it will ensure that every ham in the US, regardless of the community they live in, will have the opportunity to practice their avocation from their own homes without breaking any rules or fear of reprisal.

If enacted, HR 4969 would direct the FCC to extend the the reasonable accommodation protections to those amateurs who are living in deed-restricted communities. Known as "CC&Rs" (covenants, conditions and restrictions) are the prohibitions and limitations placed on properties by builders or home-owner associations (HOAs) which prevent licensed Amateurs from erecting even modest antennas.

HR 4969 would not give Amateurs "carte blanche" to do whatever they wished. It would require HOAs and other private land use regulations to extend reasonable accommodation to Amateurs wishing to erect antennas.



## A Bit of G.E.A.R.S Repeater History

**W6DLW-GENE ROLLS & HIS WIFE DOROTHY**, in April, 1992, executed a license for Right of Ingress/Egress, to G.E.A.R.S., providing access to the Club's repeater station for "the Purpose of maintaining and servicing an Amateur Radio Repeater Station, owned by the the Golden Empire Amateur Radio Society, Inc., including a building to house the radio equipment, vehicle parking, service drop wires for power and telephone service, towers and guy wires, use of trees for antenna support and guy wire attachments, as has existed since the year 1978."



## MEMBER SUPPORT URGENTLY NEEDED FOR REPEATER PROJECT

by Bill Pope, Treasurer, GEARS

Over the years, G.E.A.R.S. members, when asked, have rallied to the support of the W6RHC repeater. On-going routine expenses of maintenance and operation are taken care of by the club treasury, but sometimes a special need arises which the treasury cannot handle. This year we are faced with such a need. It is not a matter of choice, but rather one of survival for our repeater services to hams and community.

A word of background is in order.

The G.E.A.R.S. repeater is located in Forest Ranch on the property of one of our members, Gene Rolls, WB6DLW. For several years, Gene has been out of the area, with the house occupied by a tenant. Now the property is being put up for sale!

What will become of our repeater site?

Fortunately, legal arrangements were drawn up by WB6DLW and G.E.A.R.S. long ago to provide the club with a permanent access to the repeater site, even if the property changes hands. However, the repeater has never been provided with separate electrical service; it has been operated from the residential power, by arrangement with Gene and his tenant. Now that the property is to be sold, it will be necessary to install a PG&E metered power service directly to the repeater shack. The Board of Directors has asked Jim Richardson--W6GFK to make a study of our options. Both underground routing and overhead routing with a power pole have been explored.

The total cost of the installation will be approximately \$500.

There have been years in the past when the club treasury could have met this challenge but this is not one of them. Membership is down, and club expenses are up! The only way we can meet this challenge and continue to provide an emergency communications repeater service to local hams and communities, is to get together and push!

Car washes and bake sales won't do it. However, just fifty service minded hams in our area, chipping in ten dollars each can do it! The Board felt that, even with the present reduced membership this should be not be an unreasonable expectation. With the board member donations which have been pledged and others who have volunteered support even before the vote was taken, we are already well on the way to the first one hundred dollars..

With this in mind, and with confidence that the membership will rise to the challenge, the board has directed Jim Richardson to proceed with arrangements for PG&E to begin the project. However, without your donations the treasury will not make it through the summer.

Please make your checks out to GEARS and mark them "Donation: Repeater Fund". Send to GEARS Treasurer-W6TKE, P.O. Box 508, Chico CA, 95927. How about right now?

### New Members

Robert T Taylor KH6GNF  
296 Rio Lindo  
Chico, CA 95926  
Phone: 894-3686

Kevin M. Barbo KF6OWA  
433 North Street  
Corning, CA 96021  
Phone: 824-4130



### GRIDLESS GAMMATRON

In the late 1920s, the Robert Dollar Steamship Company wanted to install powerful transmitters on all their ships and land stations. They approached Ralph Heintz, W6RH, to research circuits that wouldn't infringe on the existing oscillator patents. Heintz and his partner, Jack Kaufman, had formed Heintz and Kaufman in 1924. Dollar had possession of a patent for a "Simpson" oscillator through their acquisition of the Simpson Radio Co. The circuit worked, but RCA refused to sell them tubes. Heintz and other young engineers from UC Berkley and Stanford began research on a different type of tube that wouldn't infringe on the patents for the triode, the getter, the thoriated tungsten filament and the internal insulator. They explored the work done by Goddard, of rocket fame, and decided to build prototype tubes based on this research.

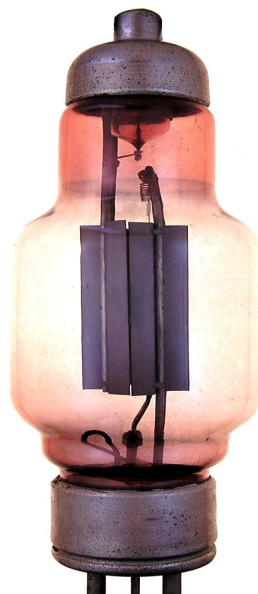
The new tube was to be much like a full wave rectifier with two large plates and a single filament. The filament was mounted very close to one plate they called a "gamma" plate. A conventional triode used a grid between the filament and plate to control the electron flow, but this tube utilized the gamma plate that had a high potential and created a field around it and the filament. Modulation or switching of the field would release electrons towards the plate. Both anodes were to be made from tantalum metal that had the nature of absorbing gas when operated at high temperatures. A pure tungsten filament and no internal insulators should solve the patent problems.

Heintz had hired some young hams to build their prototype tubes and they set up shop in South San Francisco. They chose the commonly available "250" watt envelope from Corning Glass and produced their first tubes. They worked, but the amplification factor was only 2 or 3 at best. Not a problem in a free running oscillator. The new tubes were a great success and could be run red hot, but were still underpowered for their intended application. They called their new tubes "Gridless Gammatrons". They made a few larger versions and eventually produced 1 KW transmitters for all of Dollar's ships and shore stations mostly using a tube named the HK-255. These tubes worked well at 1 KW with 5000 volts on the plate. None of these tubes were intended for public sale.

RCA was not pleased and quickly sued H&K. Seven RCA lawyers showed up for the trial, but Heintz had built an excellent set of demonstrations for this technology and before the trial started, they dropped the suit.

As the depression went on, the finances of Dollar slumped so Heintz convinced the company to start selling tubes to the public and make some money now that RCA had been found to be running a monopoly and was required to allow others to make gridless tubes. By 1934 they produced an excellent tube designated the HK-354 and sales looked promising, but Dollar's financial problems forced staff reductions. Two of the young hams that Heintz had hired and helped him set up the tube manufacturing, could see little future working for H&K so started their own tube making company. They were Bill Eitel, W6UF, and Jack McCullough, W6CHE, and their new company was called EIMAC.

de N6JV



***The GEARS Newsletter Staff:*****Editor and Publisher.....**Dorothy Post**Printing & Distribution for snail mail:** Evelyn Weir**Website...**Stephen McDermott W6AKF

The Radiator is a monthly publication of the Golden Empire Amateur Radio Society (GEARS). It is the policy of the Editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio, of interest, and space is available.

**Please send all submissions to the Editor – Dorothy Post by the last day of the month through the following medium: E-mail: dj@posthouse.us**

**Club Officers: (Board of Directors)**

President .....Anna Horn –KG6ZOA

Vice President..... Scott Petersen-KE6VUS

Secretary .....Dale Anderson-KK6EVX

Treasurer.....Lester Mikeworth KG6KUO

Past President .....Gene Wright-WA6ZRT

Director..... Tom Rider-W6JS

Director.....Stephen McDermott W6AKF

Director.....Stephen Wolske-KF6HSS

**Club Meetings****General Meeting Third Friday 6:30 PM****Board Meeting Third Friday 9:00 PM****GEARS Club Net****Tuesdays 8:00 PM 146.850 MHz-PL 110.9****GARS Club Net:Monday,19:30 147.105+Mhz PL 110.0****Sacramento Valley Traffic Net****Nightly 9:00 PM 146.850 MHz-PL 110.9****ARES Nets:****Butte Mondays 20:00 145.280 MHz-PL 110.9****Yuba Sutter Thursdays 19:00 146.085+MHz PL 127.3****Glenn Thursday 19:30 147.105 MHz +PL 100.0****Other Nets:****Sac Valley Section Net—7:00 PM 2<sup>nd</sup> Wed of the month 146.085 MHz+PL 127.3****440 Wed. Night 8:00 PM Wednesday 440.650 MHz****Golden Bear 7:00 PM Daily 3975 kHz****Willie Net 8:00 PM Mondays 1930 kHz****Western Public Service System (WPSS)****Winter 5:00 – 7:30 PM 3952 kHz****Summer 6:00 – 8:30 PM 3952 kHz****ARISS (International Space Station) Uplink 144.490 MHz Downlink 145.800 MHz****Hope-1 satellite: all uplinks are in 145Mhz band:****All downlinks are in 435Mhz band****...California Traffic Net: 3906 KHz nightly @6:00 pm****For traffic listing & @6:30 p.m. for roll call.**

From the Valley Ham News -

Yuba Sutter Amateur Radio Club

***FOR SALE***

**The wife of Bob Mulcahy (Silent Key) (KC6OXX) Marilyn has the following ham radio gear for sale. She can be contacted at 530-674-5884.**

**1. Communications Receiver Model JR 500 Make Offer**

**2. Kenwood 2m TR 7400A \$40.00**

**3. President HR 2510 \$25.00**

**4. Yaesu 2m FT 411E**

**Hand Held \$20.00**

**5. Astron Power Supply RS12A \$30.00**

**6. Heathkit GR 740 Scanner\$20.00**

**7. Allied Speaker \$5.00**

**8. Hallicrafter Short Wave Receiver S38 Make offer**

**9. Motorola Speaker \$5.00**

**10. Alfa Delta-4 Antenna Switch \$30.00**

**11. Yaesu FT-757 GX II with power supply \$300.00**

**12. Yaesu YS-60 HF SWR Power Meter \$40.00**

Sunday, December 7, 2014 / February 1, 2015	2:00 p.m.	VEC—Exams	Butte Co. Search & Rescue Building 2591 Morrow Lane, Chico	Tom Rider-W6JS 530 893-9211
Wednesday November 12, 2014	7:00 p.m.	GARS-Glenn Glenn Amateur Radio Society General Meeting, & Amateur Radio Emergency Services	Lutheran Church Hall: 565 Main Street Artois	Albert Leyva- N6YCK 530-567-5979
Friday, November 14, 2014	7:00 p.m.	OARS Oroville Amateur Radio Society General Meeting	St Paul's Church Parrish Hall 1430 Pine Street Oroville	John Hunt 530 589 4734
Friday November 20, 2014	7:00 p.m.  <b>Nominations for 2015 Officers</b>	GEARS Golden Empire Amateur Radio Society General Meeting	Butte County Search and Rescue Building 2591 Morrow Lane Chico	Anna Horn -kg6zoa 530-877-5939
Friday Thanksgiving Break no meeting	7:00 p.m.	Butte Co .ARES	Butte County Search & Rescue Building 2591 Morrow Lane Chico, CA	Scott Petersen KE6VUS 530-876-1526

**Membership dues are now payable. The application form necessary to accompany your application for renewal or to give to an acquaintance as a new member "wannabe" is sent as a separate PDF attachment which you should be able to print out. Bring the form with your dues to the next meeting, or mail to Club Secretary,**

**Dale Anderson % G.E.A.R.S.,  
P O Box 508,  
Chico, CA, 95926-0508.**

